Opportunities and Challenges for Marine Aquaculture in the Gulf of Maine

Gloucester Maritime Forum

February 7, 2103

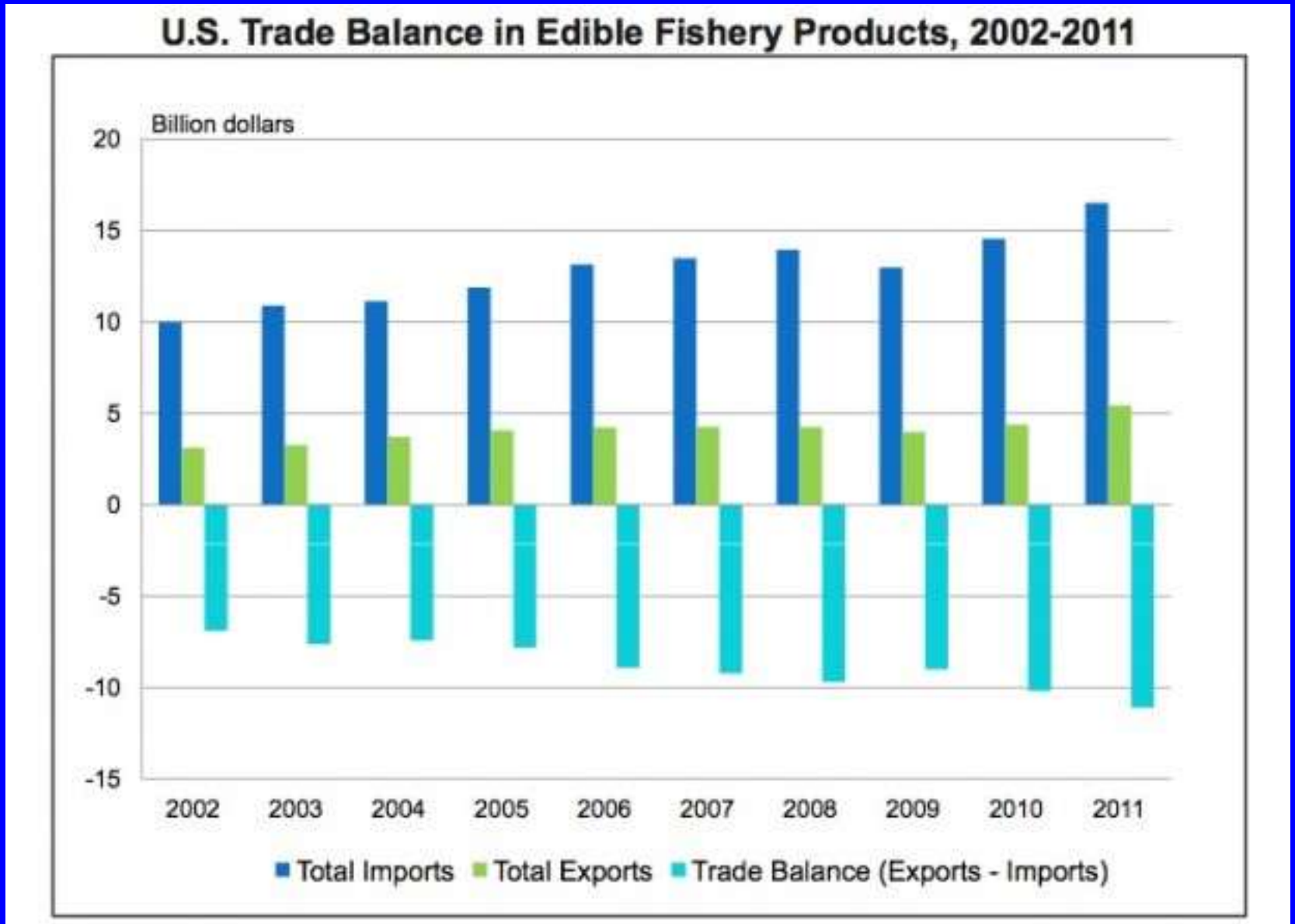
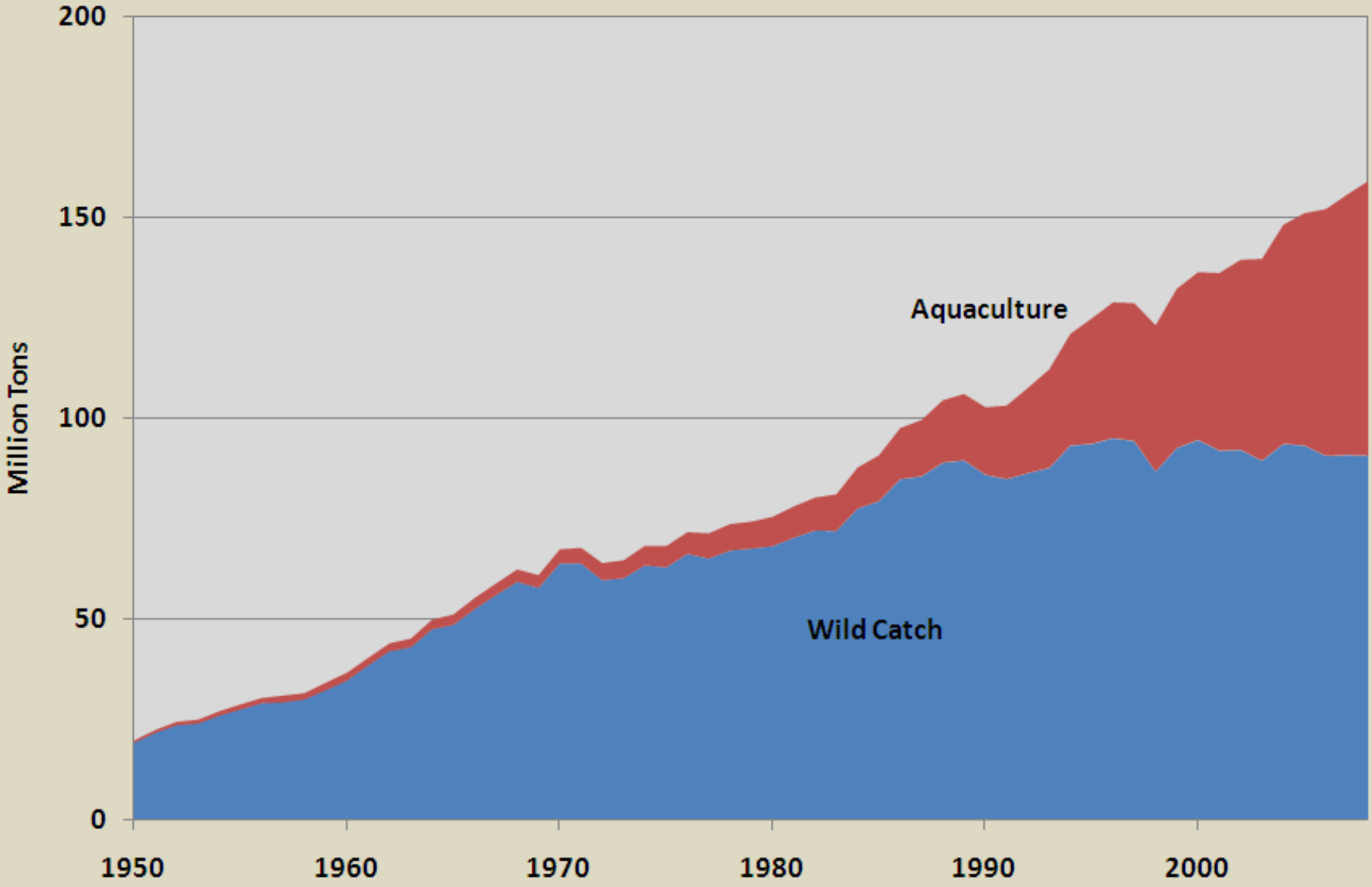

U.S. Trade Balance in Edible Fishery Products, 2002-2011
Billion dollars
20
15
10
5
0
-5
-10
-15
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Total Imports
Total Exports
Trade Balance (Exports - Imports)

Figure 1. World Seafood Production, 1950–2008



Source: FAO

Trend: Integrated Multitrophic Aquaculture (IMTA)

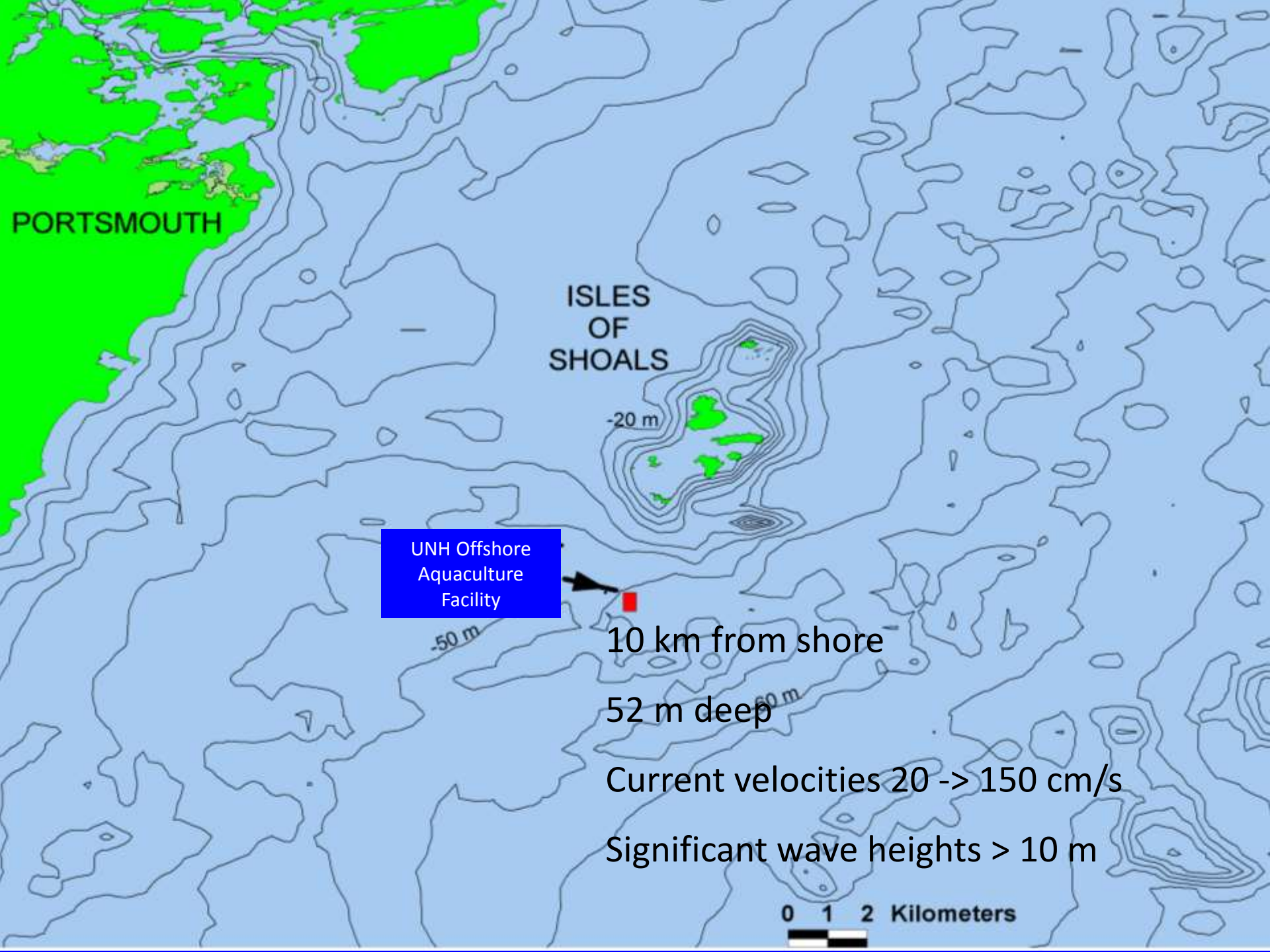
Trend: some expansion likely


Dover Point Oyster Co.
The Pearl Oyster Co
Choice Oysters
Goat Island
Little Bay Oyster Co.
Bay Point Oyster Company - Northeast Corne
Fat Dog Shellfish Co.
Granite State Shellfish
Cedar Pt. Shellfish Farm
Boston Harbor Rd
Piscataqua R
Rimble Hill Rd
Newington
McIntyre Rd
Image © 2013 DigitalGlobe
© 2013 Google
Image USDA Farm Service Agency
Image © 2013 Maine GeoLibrary
Google earth
Imagery Date: 11/8/2011
1992
43°06'24.59" N 70°50'54.90" W elev 43 ft
Footman Islands
Eye alt 20126 ft

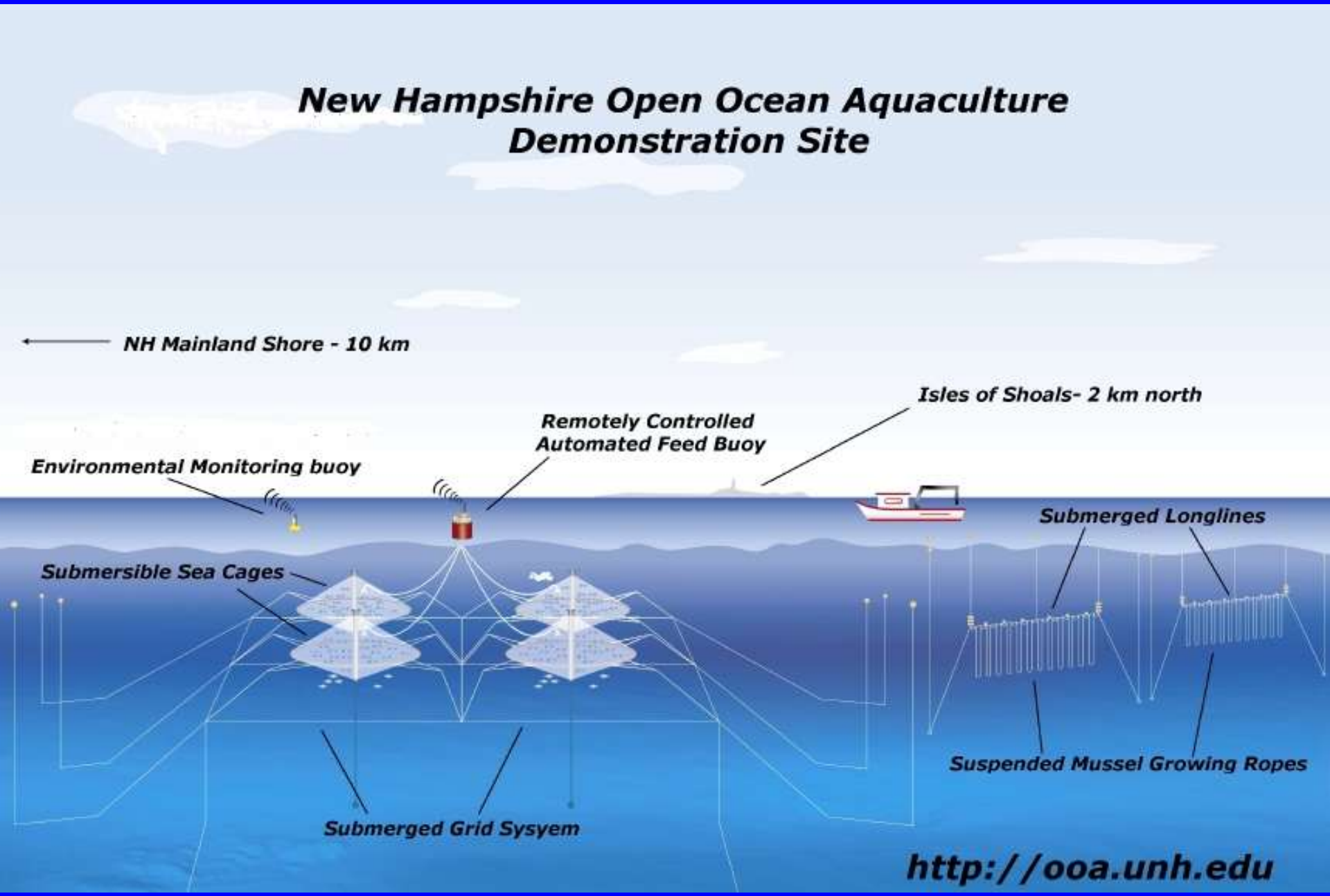

HYDRA SPORTS


Samantha Jean
CUNDY'S HARBOR, ME.

Open Ocean- US EEZ


PORTSMOUTH
ISLES
OF
SHOALS
-20 m
-50 m
60 m
UNH Offshore
Aquaculture
Facility
10 km from shore
52 m deep
Current velocities 20 -> 150 cm/s
Significant wave heights > 10 m
0 1 2 Kilometers

New Hampshire Open Ocean Aquaculture Demonstration Site



Remote control and observation





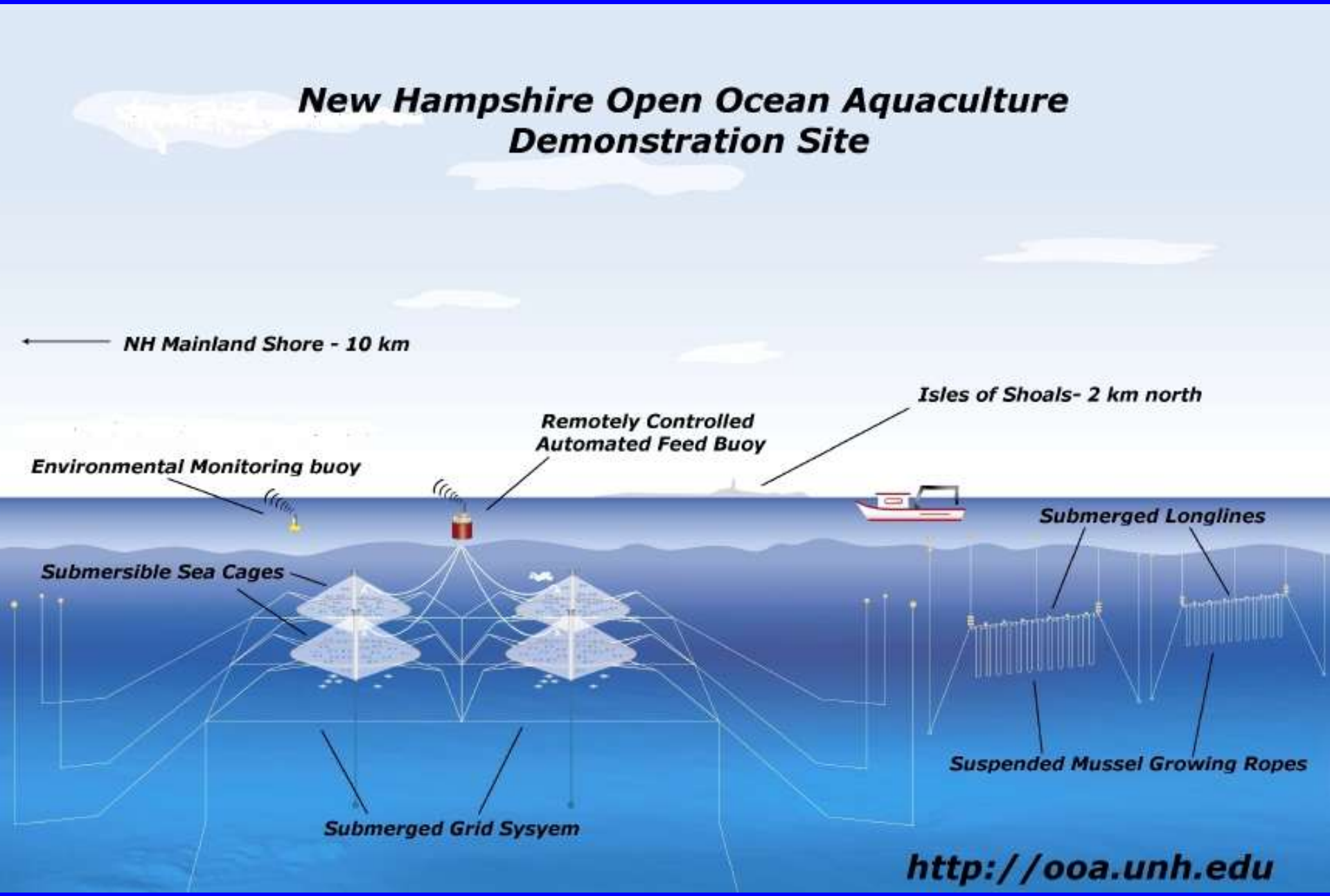
GRUNS
GRUNS
28/10/20



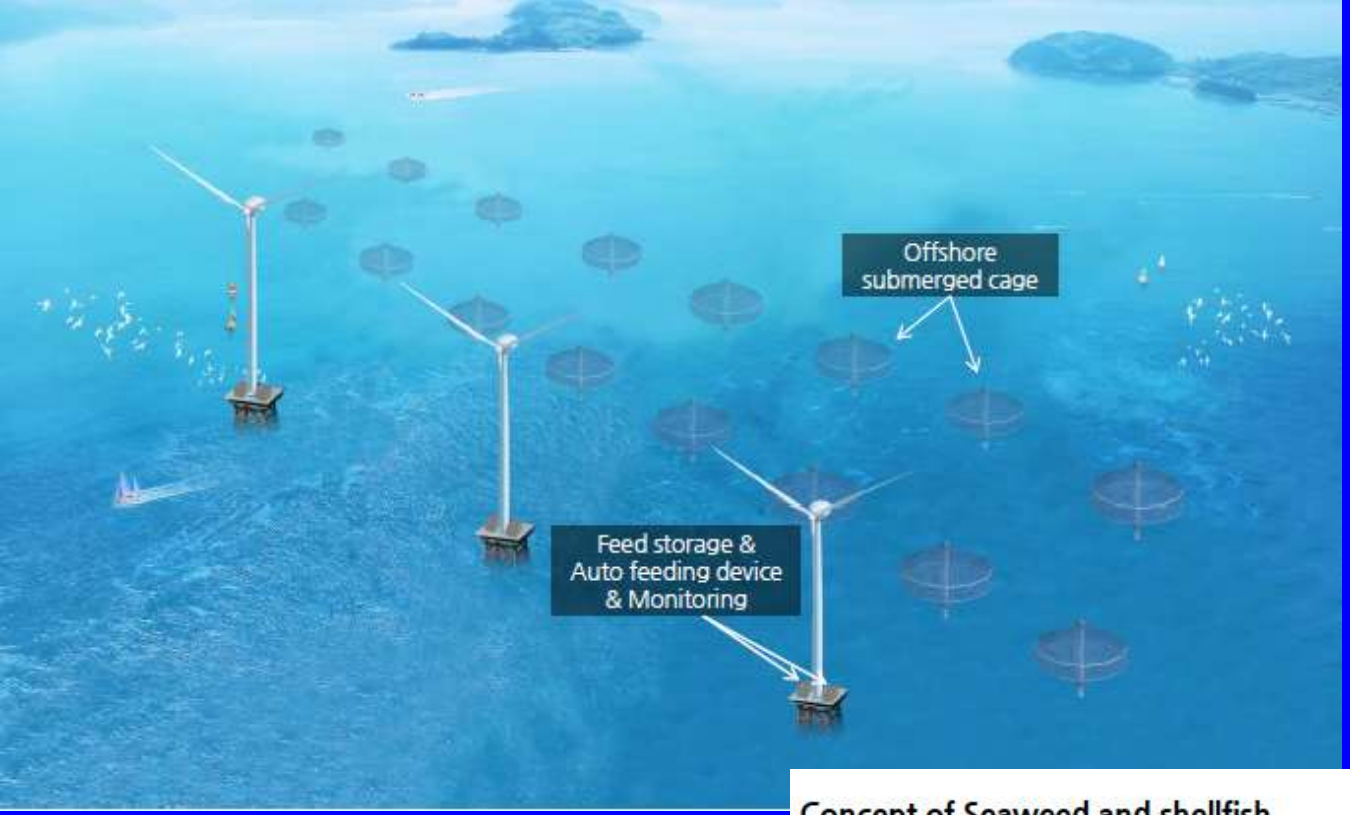


FARM RAISED
$12.99
WILD
$14.99

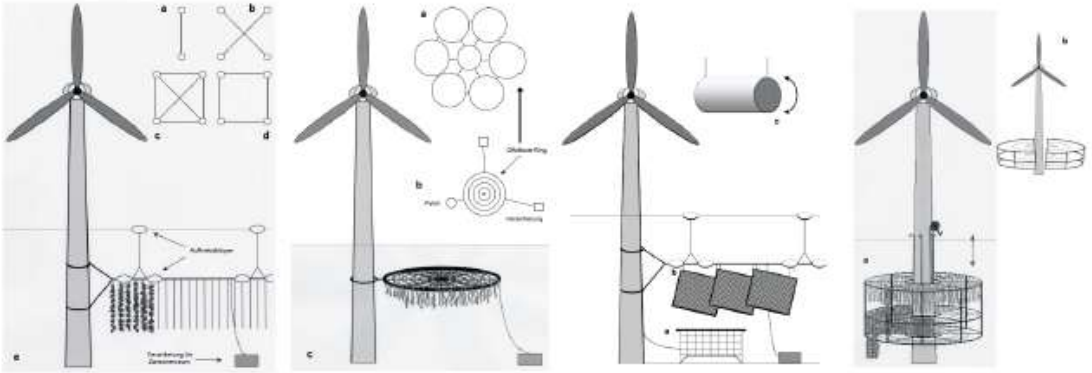
New Hampshire Open Ocean Aquaculture Demonstration Site



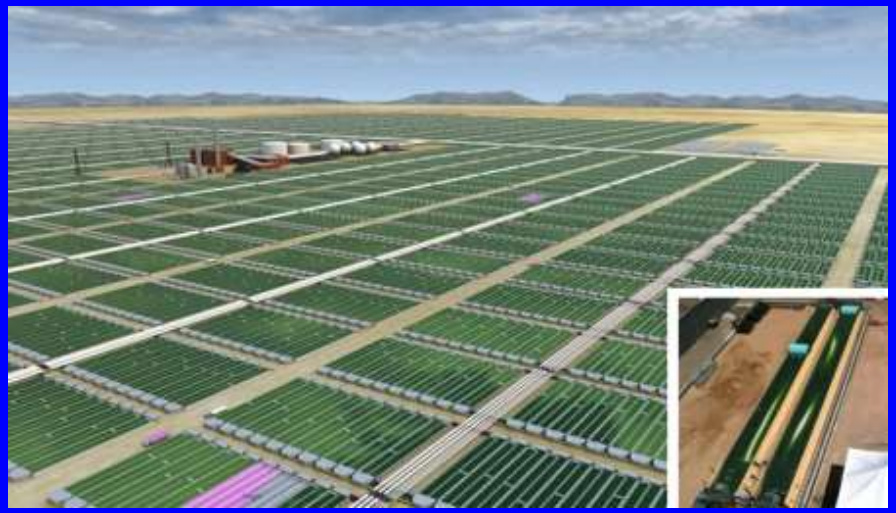

rock&roll



Concept of Seaweed and shellfish



〈Europe : Basic concept〉




Biodiesel
from Algae


Kelp Noodles
Ocean
APPROVED

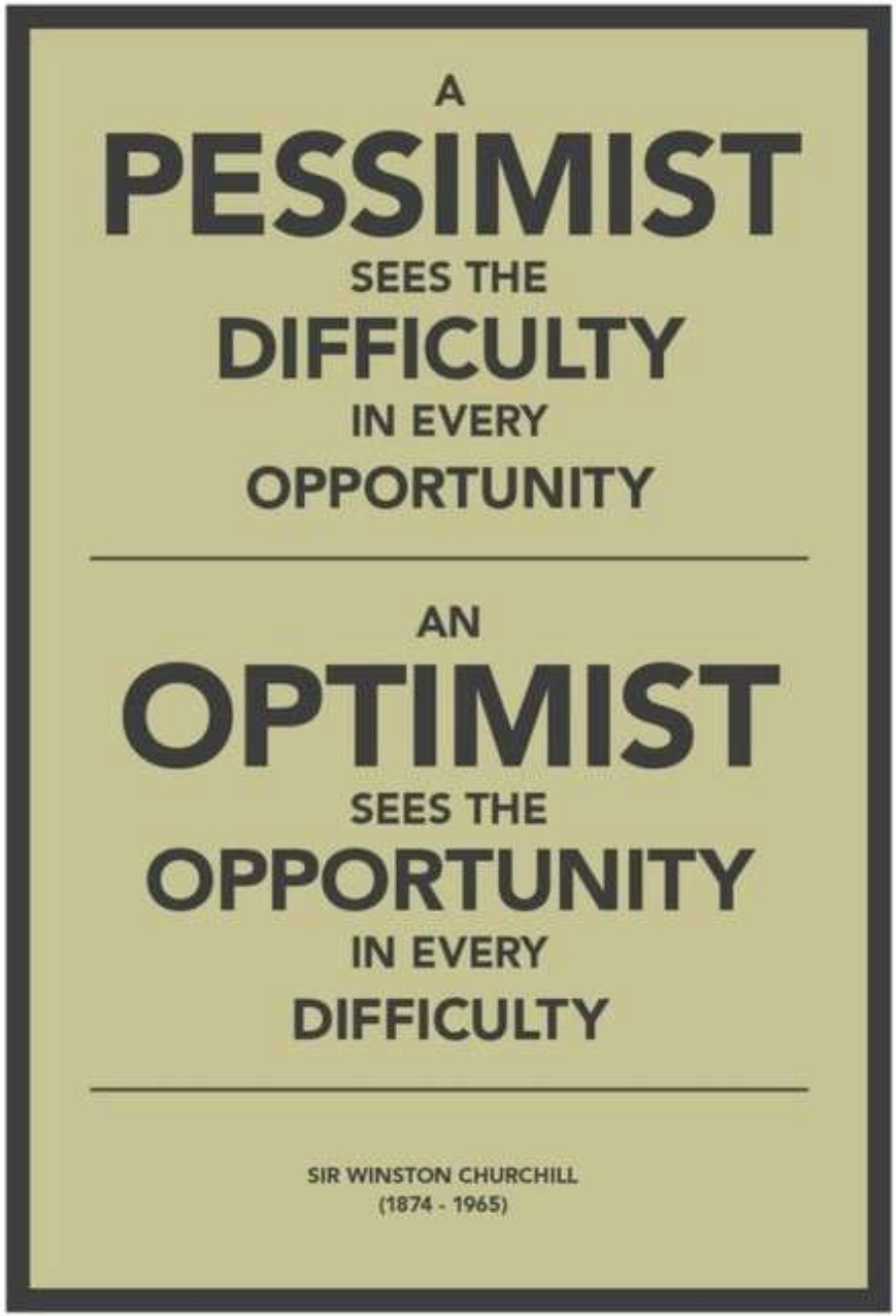

THE ART OF
SOAP
handmade
Seaweed


ulture: helping to restore d sustain the ocean's bounty.


LOST
CONFUSED
UNSURE
UNCLEAR
PERPLEXED
DISORIENTED
BEWILDERED


KEEP IT WILD
NO FISH FARMS
GREENPEACE
GREENPEACE
GREENPEACE

Conceptual diagram illustrating how effective management can reduce user conflicts in marine environments.
Diagram courtesy of the Integration and Application Network (ian.umces.edu). University of Maryland Center for Environmental Science. Source: Kruczynski, W.L., and P.J. Fletcher (eds.). 2012. Tropical Connections: South Florida's marine environment. IAN Press, University of Maryland Center for Environmental Science, Cambridge, Maryland. 492 pp.


A
PESSIMIST
SEES THE
DIFFICULTY
IN EVERY
OPPORTUNITY
AN
OPTIMIST
SEES THE
OPPORTUNITY
IN EVERY
DIFFICULTY
SIR WINSTON CHURCHILL
(1874 - 1965)


Thank You!
Questions?